

PATENT COOPERATION TREATY

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From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:
LEANDRO ARECHEDERRA
EXXONMOBIL CHEMICAL COMPANY
LAW TECHNOLOGY
PO BOX 2149
BAYTOWN, TX 77522-2149

PCT

WRITTEN OPINION

(PCT Rule 66)

Applicant's or agent's file reference 2003B133C		Date of Mailing (day/month/year) 22 SEP 2004
International application No. PCT/US03/40916		REPLY DUE within 2 months/days from the above date of mailing
International filing date (day/month/year) 19 December 2003 (19.12.2003)	Priority date (day/month/year) 20 December 2002 (20.12.2002)	
International Patent Classification (IPC) or both national classification and IPC IPC(7): C08F 236/02, 236/08 and US Cl.: 526/337, 339		
Applicant EXXONMOBIL CHEMICAL PATENTS, INC.		

- This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.
- This opinion contains indications relating to the following items:
 - ☒ Basis of the opinion
 - ☐ Priority
 - ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - ☐ Lack of unity of invention
 - ☒ Reasoned statement under Rule 66.2 (a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - ☐ Certain documents cited
 - ☐ Certain defects in the international application
 - ☐ Certain observations on the international application
- The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension. See rule 66.2(d).~~

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
- The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 20 April 2005 (20.04.2005)

Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Roberto Rábago Telephone No. (703) 308-0661
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Form PCT/IPEA/408 (cover sheet)(July 1998)

ACKNOWLEDGED
PATENT LEGAL ASSISTANT GROUP
G. M. CARROLL

SEP 29 2004

☐ FYI
☐ Reminder
☐ File

EMCLT
BAYTOWN

SEP 28 2004

I. Basis of the opinion

1. With regard to the elements of the international application:*

☒ the international application as originally filed☒ the description:

pages 1-107, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of _____

☒ the claims:

pages 108-127, as originally filed

pages NONE, as amended (together with any statement) under Article 19

pages NONE, filed with the demand

pages NONE, filed with the letter of _____

☒ the drawings:

pages 1-4, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of _____

☐ the sequence listing part of the description:

pages NONE, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☐ The amendments have resulted in the cancellation of:☐ the description, pages NONE☐ the claims, Nos. NONE☐ the drawings, sheets/fig NONE5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. STATEMENT**

Novelty (N)	Claims <u>83-86, 90</u>	YES
	Claims <u>1-82, 87-89, 91-95</u>	NO
Inventive Step (IS)	Claims <u>83-86, 90</u>	YES
	Claims <u>1-82, 87-89, 91-95</u>	NO
Industrial Applicability (IA)	Claims <u>1-95</u>	YES
	Claims <u>NONE</u>	NO

2. CITATIONS AND EXPLANATIONS

Claims 1-82, 87-89 and 91-95 lack novelty under PCT Article 33(2) as being anticipated by each individually of Welch et al. (US 2,548,415) and Calfee et al. (US 2,534,698) as cited in the International Search Report. The reference examples set forth a copolymer of isobutylene and isoprene useful in elastomer compositions, wherein the copolymer is made using Lewis acid catalyst compositions in the presence of hydrofluorocarbon or fluorocarbon diluents. Although neither reference has measured the obscure property "F" as set forth in the formula of the claims, the reference copolymers appear to inherently contain the property "m" within the claimed ranges because they have been made using the same monomers, diluents, and class of catalysts as those described in applicants' specification. Regarding the dependent claims, the references further suggest comonomer distributions and solvent selections in both Welch '415 (col. 3, line 63 through col. 4, line 69) and Calfee '698 (col. 2, lines 10-13; col. 3, lines 15-45); increased molecular weights are disclosed in Welch '415 at col. 5, lines 43-48. It is noted that certain copolymer claims include process components within the structure of product-by-process claims; however, there is nothing in the specification or the prior art which would lead to a conclusion that these additional process components would necessarily result in any substantive differences in the claimed copolymers which would render such copolymers outside the scope of those disclosed in the applied references.

Claims 83-86 and 90 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest either halogenation of the disclosed copolymers or the making of copolymers of molecular weight in excess of 1,000,000.

Claims 1-95 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

----- NEW CITATIONS -----

WRITTEN OPINION

International application No.
PCT/ 40916

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

TIME LIMIT:

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.